



# Cambridge GIS

## Summer 2012 Newsletter

Cambridge Geographic Information System

### GIS Staff

#### IT Department

Jeff Amero, GIS Manager  
Sean Sweeney, GIS Specialist  
David Boiano, GIS Intern

#### Community Development

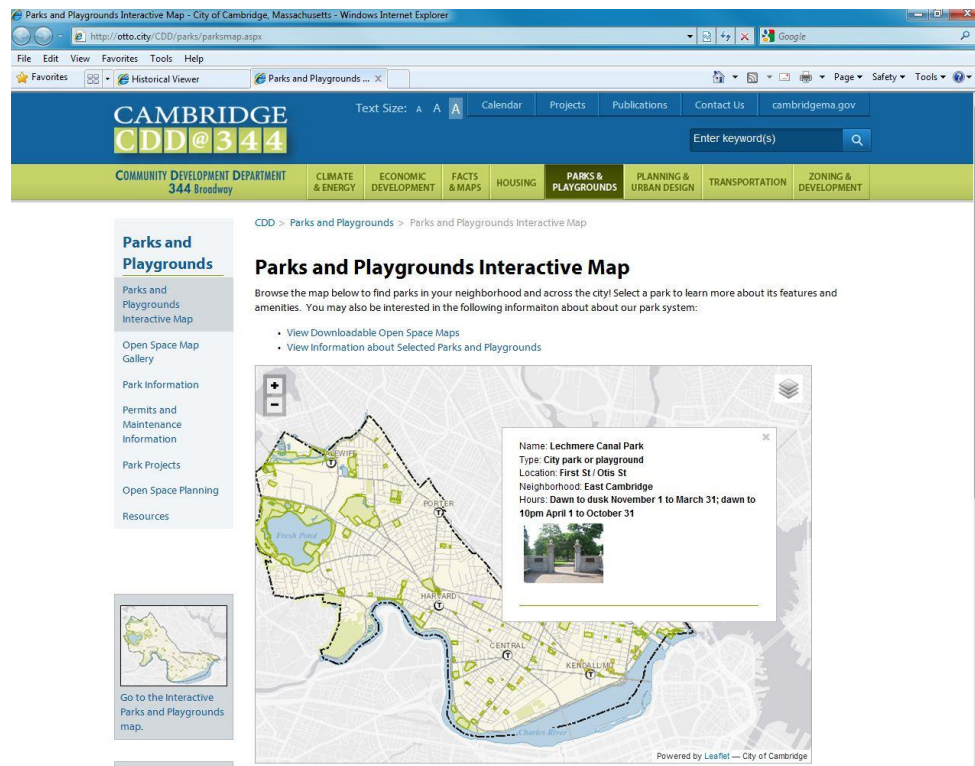
Brendan Monroe, GIS Specialist

Cambridge GIS is working on some exciting projects this year, many of which will help both the public and staff better access information spatially through the City's Geographic Information System.

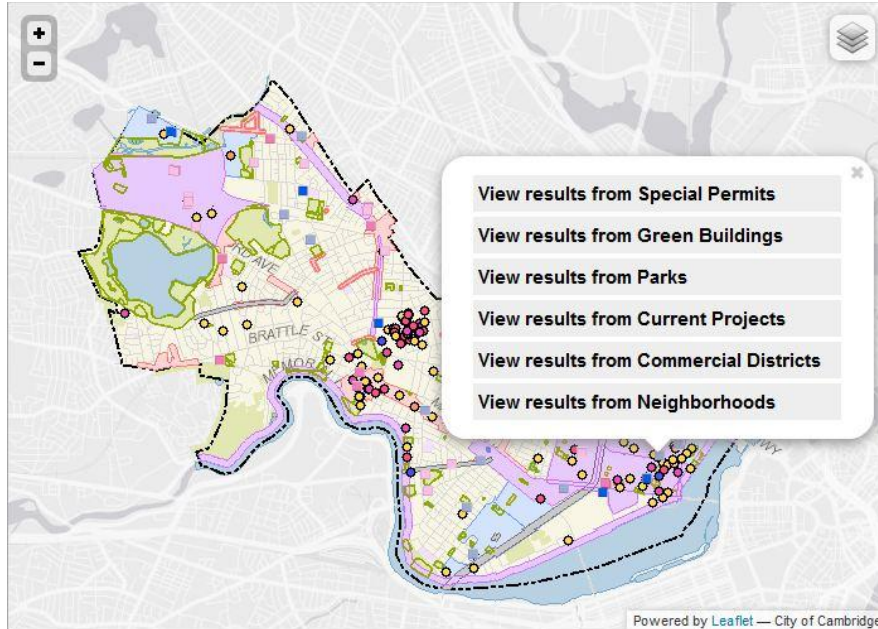
## New GIS Web Tools

We have been working all year on our new interactive GIS Web tools. These will be in addition to Cambridge CityViewer which has been available for several years. These tools are being built and served in-house and will be expanded through several departments as the year goes on. The Web maps will work with all desktop browsers as well as smart devices. The thought behind these GIS maps is to offer a very user friendly and easy to use tool that can also pull information from the City's databases based on one theme. These interactive maps can be embedded inside City Web pages, or launched as a separate window.

Our first maps are now live within the pages of the new Community Development Web site. The themes are Parks, CDD projects, Commercial Districts, Green Buildings, & Special Permits. There is also a map with all 5 themes. Highlights of this map is the ability to select an area and get several pieces of information about the site, Google-like use-ability, and in some maps, the ability to turn on and off GIS layers. Visit: [www.cambridgema.gov/cdd](http://www.cambridgema.gov/cdd) to see the maps.

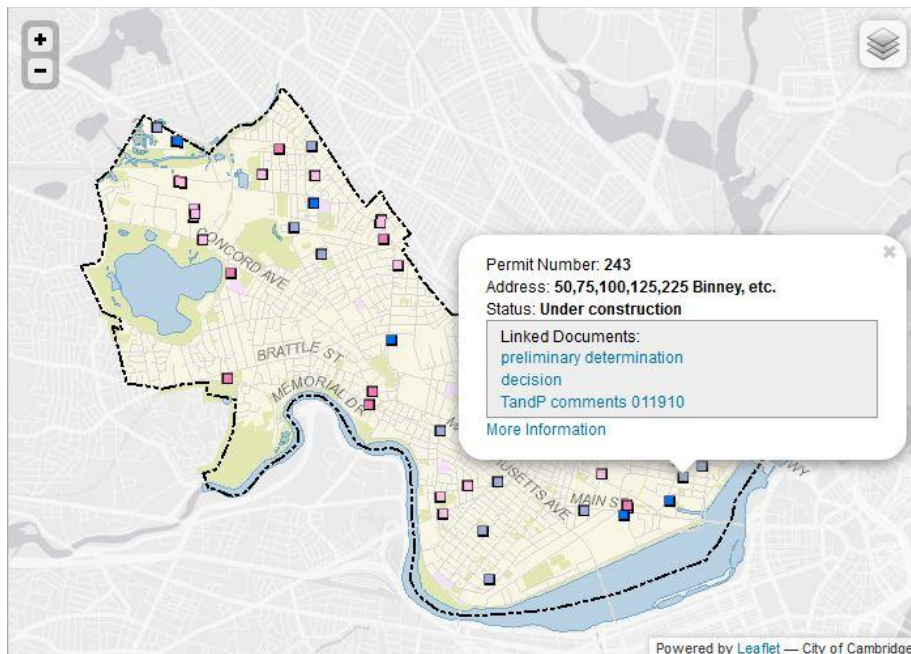


A look at the new CDD Web site page which features an interactive GIS map within the page.



*Here is a screenshot of the viewer with many layers and type of information available*

The data from map is all coming from the City's databases. The map itself is being served through the GIS Web server and the map design was created in-house by CDD GIS Specialist Brendan Monroe. The gray background with other towns is a new look and coming through an off-site map service. The data for the call out boxes is coming through several city servers. In the near future, we will be creating similar Web maps with other themes for other departments. Check the GIS Web page at: <http://www.cambridgema.gov/GIS> for announcements and links to new maps. We are also working on an address search within the map. This should be available in July.



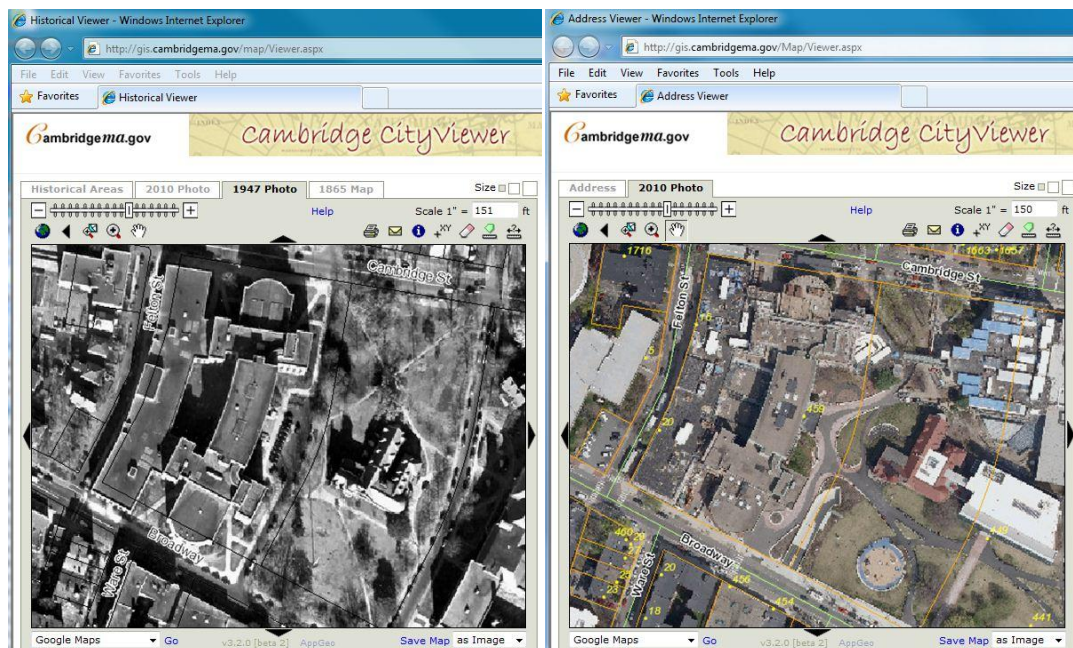
*Example of the new GIS Web map with linked information in the call out box. By clicking on each link, either a associated document or a related Web page will be available.*



## Cambridge CityViewer Updates

Our current GIS Web viewer is called Cambridge CityViewer. Cambridge CityViewer is a tool which allows the user to query any database linked to the GIS, select properties, create mailing labels, export the data to a spreadsheet, access related documents or photos, and print a map. It be accessed from either our GIS Web page at: <http://www.cambridgema.gov/GIS> where there are several themed viewers with an address search (zoning, infrastructure, historical, etc.), or the most visited viewer with a theme of property information can be found after you search for a property in the Assessors Cambridge Property Database at: <http://www2.cambridgema.gov/fiscalaffairs/PropertySearch.cfm>.

We will upgrading these viewers in May with a new modern interface, better efficiency, and it will compatible with more types of browsers. The viewer will also have a new mobile interface. There are also many new layers and themes on the viewers. One of the latest additions is the new enhanced 1947 aerial photographs. These photos were taken from the City archives, scanned, and georeferenced to real world coordinates. We recently had the photos color balanced and put into a seamless mosaic. They look great! Use the 1947 Photo tab at: <http://www2.cambridgema.gov/GIS/search.cfm?applicationid=historicalpub>.



*A look at CRLS and the Cambridge Main Library in 1947 and in 2010 (note construction)*

## ArcGIS 10

City of Cambridge staff who use ArcGIS Desktop have been upgraded to version 10. This is the latest release from our software provider, ESRI. Along with the desktop products, the GIS team has also upgraded the database and server ArcGIS technology as well as the database servers, database software, and associated components of the enterprise GIS over the past year. To learn more about ArcGIS10, visit: <http://www.esri.com/software/arcgis/arcgis10/index.html>

We have also reorganized all of the GIS data layers in SQL Server when we received the new base map layers from the 2010 flyover. This was an excellent chance to clean up old legacy data, irrelevant fields in some layers, and review update procedures of the data layers. We have built some repathing tools so older ArcGIS projects can connect to the new data sources. Please contact Jeff or Sean if you need the new tool set or have problems locating any data layers.

## Master Address System Update

The City is constantly updating the master address database with the most current address information. The GIS group has been hard at work doing a comprehensive cleanup of each address to assure it is a valid address, linked to the proper building and tax parcel, and has an associated address point in GIS which is generally mapped to the main doorway to assist Public Safety. The addresses are used by citywide enterprise systems such as the work order management system, Web searches which require an address, GIS, and soon the new permitting system to be first implemented in our Inspectional Service Department.

This year we will be tying together the address and GIS database into a Web page which will be available to the public and will return a wealth of information on the address queried. This initially will include ownership information from the property database, zoning designation, voting precinct, historic district, neighborhood, and information pertaining to buildings at that address. The second phase will to add information from other city databases which have a validated address field. Work is on-going to get a good match on several key databases,

## Upcoming GIS Events in the Area

Some upcoming events with a focus on GIS. This is a great way to find out more about the technology in your specific area of interest, or to see what other municipalities are doing with GIS.

**NEURISA- Sturbridge, MA** – 1 day event. Monday, October 15. New England URISA focuses on both GIS and related technology by all vendors. This event usually costs \$45. Still in the planning stage.

<http://www.neurisa.org/2012topics>

**NEARC – Rockland, ME** – 3 day event. Mon. – Wed., Nov. 11<sup>th</sup> – 14<sup>th</sup>

Northeast ArcGIS User Group Conference. Most established user group meeting in region. Very focused on municipal GIS. There is a registration cost. Visit <http://www.northeastarc.org/>

## New Twitter Feed for Cambridge GIS

Cambridge GIS is constantly updating Web content on the GIS department page and within other departmental sites. We will be sending out tweets when any new significant feature is added or if there is interesting GIS events in activities which relate to Cambridge.

Follow us at @CambridgeGIS <https://twitter.com/CambridgeGIS>



*What is it?* This is a surface model generated from a 1 meter LiDAR point cloud. This is part of a study by the University of Vermont Spatial Analyst Lab on the Cambridge urban tree canopy. This study will help the City determine where to plant more trees. The 'U' shaped building is City Hall.

For more information on Cambridge GIS, please contact Jeff Amero at 617-349-6015 or [jamero@cambridgeMA.gov](mailto:jamero@cambridgeMA.gov)